PATENT
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UNITED STATES PATENT APPLICATION

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FOR

COOK FAN

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a cook fan that may be used to prevent the boiling over of a container during cooking. During cooking using a boiling liquid, the liquid may boil up and spill over the side of the cooking container. For example, when cooking pasta, water is boiled, the pasta is added, and then the combination is returned to boiling. During the cooking of the pasta is common for the bubbles to build up causing the boiling water to spill over the side. This creates safety issues in that on a gas stove it can put out the flame, allowing the natural gas to flow unchecked until it reaches an ignition source. Once at an ignition source the natural gas can cause an explosion. On an electric stove the spilt liquid and food may accumulate on the burner and catch on fire. Further, the overflow must be cleaned up after cooking. An alternative is for the cook to continuously monitor the cooking process, which is undesirable. Also, a much larger container than is necessary may be used, but this takes up unnecessary space, which is undesirable. Therefore there remains a need for a way to safely cook by boiling without boiling over.

SUMMARY OF THE INVENTION

[0002] Accordingly, the present invention is directed to cook fan that substantially obviates one or more of the problems due to limitations and disadvantages of the related art.

[0003] An advantage of the present invention is to provide a cook fan to prevent boiling over in a cooking container.

[0004] Additional features and advantages of the invention will be set forth in the description which follows, and in part will be apparent from the description, or may be learned by practice of the invention. The advantages of the invention will be realized and attained by the structure particularly pointed out in the written description and claims hereof as well as the appended drawings.

[0005] To achieve these and other advantages and in accordance with the purpose of the present invention, as embodied and broadly described, a cook fan for preventing boiling over in a cooking container includes a base that allows the cook fan to be placed near the cooking container; a fan attached wherein the fan further comprises a motor and blades attached to the motor; and a connector member attached to the base and the fan, wherein the connector member allows the position of the fan to be adjusted.

[0006] In another aspect of the present invention, a method of cooking using boiling and a cook fan includes a placing a cooking liquid in a cooking container; heating the cooking container; blowing air over a surface of the cooking liquid using a cook fan; adding food to be cooked to the cooking liquid.

[0007] It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are intended to provide further explanation of the invention as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The accompanying drawings, which are included to provide a further understanding of the invention and are incorporated in and constitute a part of this

specification, illustrate embodiments of the invention and together with the description serve to explain the principles of the invention.

[0009] In the drawings:

[0010] FIG. 1 shows a front and side view of one embodiment of a cook fan according to the present invention;

[0011] FIGs. 2-4 illustrate other embodiments of the present invention;

[0012] FIG. 5 illustrates a battery operated embodiment of the present invention; and

[0013] FIG. 6 illustrates another embodiment of the present invention with an electric cord for powering the cook fan.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

[0014] Reference will now be made in detail to an embodiment of the present invention, examples of which is illustrated in the accompanying drawings.

[0015] FIG. 1 shows a front and side view of one embodiment of a cook fan 10 according to the present invention. This embodiment of the cook fan 10 has a heavy base 20, a support 30, and a fan assembly 40 that includes a motor 50, fan blades 60, and protective cage 70. The heavy base 20 may be designed to be heavy enough to securely hold the cook fan 10 upright and in place. Preferably the heavy base is made of a heat resistant material, because the heavy base 20 may be situated near the heat source used for cooking. The support 30 attaches to the heavy base 20 and the fan assembly 40. The support 30 supports the fan assembly 40 so that it may be positioned to blow air over a cooking container. The support 30 may have a latch 80 that fits into holes 90 that allows the height of the fan to be adjusted up and down so that it may be optimally positioned with respect to the cooking

container. In the fan assembly 40, a motor 50 rotates fan blades 60 that are inside a protective cage 70. The rotating fan blades 60 blow air over the cooking container. This blowing air prevents the cooking container from boiling over when the cooking liquid begins to boil.

[0016] FIG. 2 illustrates another embodiment of the present invention. As shown in FIG. 2, the cook fan 10 has an adjustable support 30, that bends and is secured at an angle. This allows the cook fan 10 to be adjusted so that it may be optimally positioned with respect to the cooking container.

[0017] FIG. 3 illustrates another embodiment of the present invention. In FIG. 3, the base 20 is magnetic. This allows the base 20 to be securely placed on a magnetic metal surface on the stove or near the cooking container. The magnetic attraction between the metal surface and the magnetic base 20 secures the cook fan 10 to the stove preventing the fan from tipping over. The magnetic base 20 may also be attached to the cooking container if the cooking container is made of a magnetic material. In this case, the magnetic base 20 should be made of a material able to withstand the heat and temperature of the cooking container.

[0018] FIG. 4 illustrates another embodiment of the present invention. In FIG. 4, the base 20 of the fan is a clip 100. The clip 100 may be attached to a convenient surface near the cooking container. Also, the clip 100 may be attached to the cooking container itself. In this case, the clip 100 is made of a material that can withstand the heat and temperature of the cooking container. Also, the support may be adjusted to allow the angle of the cook fan to be optimally adjusted, so that the air from the fan blows on the surface of the cooking liquid in the cooking container.

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[0019] FIG. 5 illustrates a battery operated embodiment of the present invention. The motor 50 is driven by a battery. The battery may be disposable batteries or rechargeable batteries. The rechargeable batteries may be externally charged or may be charged directly within the motor 50. This embodiment also shows a fan assembly 40 that does not have a cage 70. Further, the support 30 may be an adjustable goose neck support as shown in FIG. 5. The shape of the gooseneck support 30 may be adjusted to allow the location and orientation of the cook fan 10 to be adjusted so that it blows air onto the surface of the cooking liquid in the cooking container. FIG. 6 illustrates an embodiment similar to that in FIG 5, but it has an electric cord 110 for powering the cook fan. The cord 110 may supply electricity directly to the motor 50 or may supply electricity to charge a rechargeable battery.

[0020] The cook fan 10 of the present invention may be used to prevent cooking liquid from boiling over while food is cooked in a cooking container. As an example, pasta is typically cooked in boiling water. The water is placed in a cooking container and heated. Once the water is boiling the pasta is added. The after the pasta is added, the cook fan 10 may be turned on to blow air onto or over the surface of the water. Often when pasta is added to boiling water it foams up, and boils over the side. The air blown by the cook fan across the boiling water prevents the boiling water from boiling over the side of the cooking container.

[0021] In another embodiment of the present invention, the base 20 of the cook fan 10 may have a structure that securely slides down over the edge or a handle of the cooking container. In this case the, the base is made of a material to withstand the heat and temperature of the cooking container. Further, the base may have a clamp using a screw mechanism to attach the clamp to the cooking container or a nearby secure structure. The

materials used for the base and the supports may be able to withstand temperatures greater than 200°F.

[0022] It will be apparent to those skilled in the art that various modifications and variation can be made in the present invention without departing from the spirit or scope of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the scope of the appended claims and their equivalents.